

WO 2005/072475

PCT/US2005/003560

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EX05-004patentin.txt

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EX05-004patentin.txt

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EX05-004patentin.txt

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EX05-004patentin.txt

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EX05-004patentin.txt

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EX05-004patentin.txt

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EX05-004patentin.txt

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EX05-004patentin.txt

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Cys Ala Cys Thr Gly Thr Cys 3215 3220 Thr Thr Cys Cys Ala 3225 Gly Gly Gly

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Cys Cys Thr Thr Thr Cys 3245 3250 Thr Ala Cys Thr Gly 3255 Ala Cys Cys

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EX05-004patentin.txt

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3335 3340 3345

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<211> 2052

<212> PRT

<213> Homo sapiens

<400> 7

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35 40 45

Gly Cys Gly Cys Thr Gly Cys Cys Gly Cys Gly Cys Gly
50 55 60

Cys Cys Cys Gly Cys Ala Thr Gly Gly Ala Cys Thr Gly Gly Ala
65 70 75 80

Gly Gly Cys Gly Cys Cys Gly Gly Ala Gly Gly Ala Gly Gly
85 90 95

Cys Gly Gly Cys Gly Gly Cys Gly Cys Ala Gly Cys Cys Gly Gly
100 105 110

Gly Ala Cys Ala Gly Cys Ala Gly Cys Gly Ala Cys Cys Thr Gly Gly
115 120 125

Gly Cys Cys Cys Gly Gly Cys Gly Cys Ala Gly Gly Gly Cys Cys
130 135 140

EX05-004patentin.txt

Cys Cys Gly Gly Cys Gly Gly Gly Cys Gly Gly Cys Cys Gly Gly
145 150 155 160

Ala Gly Gly Gly Gly Gly Cys Gly Gly Cys Cys Cys Thr Gly
165 170 175

Gly Gly Cys Cys Cys Gly Gly Ala Cys Ala Gly Ala Gly Gly Gly
180 185 190

Thr Cys Cys Ala Gly Cys Cys Thr Cys Cys Ala Cys Ala Gly Cys Gly
195 200 205

Ala Gly Cys Cys Thr Gly Ala Gly Ala Gly Gly Cys Cys Gly Gly
210 215 220

Cys Cys Thr Cys Gly Gly Cys Cys Thr Gly Cys Gly Cys Cys Gly
225 230 235 240

Gly Gly Gly Ala Cys Ala Gly Ala Gly Thr Cys Cys Gly Cys
245 250 255

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Thr Thr Gly Gly Ala Gly Thr Ala Gly Ala Gly Ala Cys Cys Gly Ala
305 310 315 320

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325 330 335

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340 345 350

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355 360 365

Thr Cys Thr Ala Gly Ala Ala Thr Gly Gly Ala Gly Cys Thr Gly Gly
370 375 380

Thr Cys Ala Gly Ala Gly Cys Thr Gly Gly Ala Gly Ala Cys Gly Ala
385 390 395 400

Cys Thr Thr Gly Thr Cys Thr Thr Thr Gly Gly Ala Cys Gly Ala
405 410 415

EX05-004patentin.txt
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435 440 445

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450 455 460

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465 470 475 480

Gly Cys Cys Ala Gly Cys Cys Cys Thr Gly Gly Ala Cys Ala Cys
485 490 495

Ala Gly Cys Cys Ala Gly Gly Gly Thr Thr Cys Ala Thr Gly Gly
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Gly Cys Cys Cys Thr Gly Gly Ala Cys Ala Gly Ala Gly Cys Thr Gly
515 520 525

Gly Ala Ala Ala Cys Gly Cys Ala Thr Gly Gly Thr Cys Ala Cys
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Gly Gly Thr Cys Ala Ala Gly Thr Cys Cys Thr Gly Gly Gly Cys Thr
565 570 575

Gly Ala Thr Ala Ala Cys Cys Thr Cys Thr Gly Gly Ala Cys Cys Cys
580 585 590

Ala Cys Cys Ala Gly Ala Ala Cys Ala Gly Thr Thr Cys Cys Ala Gly
595 600 605

Cys Cys Thr Cys Cys Ala Gly Ala Cys Thr Cys Ala Cys Cys Cys Ala
610 615 620

Gly Ala Ala Gly Gly Ala Gly Cys Cys Thr Gly Thr Cys Cys Cys Thr
625 630 635 640

Cys Ala Ala Ala Ala Gly Ala Gly Cys Cys Ala Ala Gly Thr Gly Cys
645 650 655

Thr Gly Ala Thr Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala Ala Ala
660 665 670

Gly Ala Ala Thr Thr Gly Thr Ala Thr Ala Cys Thr Gly Ala Thr Gly
675 680 685

EX05-004patentin.txt
Gly Cys Thr Cys Cys Ala Gly 690 695 Gly Ala Cys Ala Cys Ala Ala Cys Ala 700

Gly Gly Ala Thr Ala Thr Thr Gly Ala Ala Gly 705 710 Gly Thr Cys Cys Cys 720 715

Thr Gly Gly Ala Cys Ala Gly 725 730 Cys Cys Ala Thr Ala Thr Ala 735

Cys Thr Gly Ala Thr Gly Gly Cys 740 745 Thr Cys Cys Cys Ala Gly Ala Ala 750

Ala Ala Ala Ala Cys Ala Gly 755 760 Gly Ala Thr Ala Cys Thr Gly Ala Ala 765

Gly Cys Ala Gly Cys Cys Ala Gly 770 775 Gly Ala Ala Ala Cys Ala Gly Cys 780

Cys Thr Gly Gly Cys Ala Cys 785 790 Thr Gly Gly Thr Gly Thr Thr Thr 800 795

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Cys Ala Cys Ala Ala Cys Cys Thr Ala Gly Cys Ala 835 840 Cys Thr Gly Ala 845

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Thr Cys Thr Thr Gly Gly Ala Gly 885 890 Ala Cys Cys Thr Gly Ala 895

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Gly Ala Ala Cys Cys Ala Gly 915 920 Ala Gly Cys Cys Thr Gly Gly Ala Gly 925

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EX05-004patentin.txt
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980 985 990
Cys Ala Thr Thr Ala Cys Cys Cys Cys Thr Gly Ala Gly Ala Cys Cys
995 1000 1005
Cys Cys Thr Gly Ala Gly Cys Cys Thr Gly Ala Gly Gly Cys Cys
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Cys Ala Gly Cys Cys Ala Gly Thr Gly Gly Ala Cys Cys Cys
1025 1030 1035
Cys Cys Cys Thr Cys Cys Cys Gly Gly Gly Thr Thr Gly Ala Gly
1040 1045 1050
Gly Gly Gly Gly Cys Ala Gly Cys Gly Gly Cys Gly Gly Cys
1055 1060 1065
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1070 1075 1080
Thr Cys Thr Thr Thr Cys Gly Ala Cys Gly Ala Gly Thr Cys Thr
1085 1090 1095
Gly Ala Gly Gly Ala Thr Gly Ala Cys Gly Thr Gly Gly Thr Gly
1100 1105 1110
Gly Cys Cys Gly Gly Gly Gly Cys Gly Gly Ala Gly Gly Thr
1115 1120 1125
Gly Cys Cys Ala Gly Cys Gly Ala Thr Cys Cys Cys Gly Ala Gly
1130 1135 1140
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1145 1150 1155
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1160 1165 1170
cys Thr Gly Ala Ala Gly Ala Cys Ala Gly Thr Thr Cys Thr Gly
1175 1180 1185
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1190 1195 1200
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EX05-004patentin.txt
Ala Ala Ala Cys Ala Cys Thr Ala Cys Cys Cys Thr Thr Gly Gly
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Gly Thr Cys Cys Ala Gly Cys Thr Thr Thr cys Thr Gly Gly Ala
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Cys Ala Gly Gly Cys Ala Gly Gly Ala Gly Ala Gly Ala Thr
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Gly Gly Thr Cys Gly Gly Ala Thr Thr Cys Thr Gly Ala Ala Ala
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Cys Gly Thr Thr Thr Cys Thr Gly Thr Cys Ala Gly Thr Gly Thr
1295 1300 1305 1310 1315 1320 1325 1330 1335 1340 1345 1350 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400 1405 1410 1415 1420 1425 1430 1435 1440 1445 1450 1455 1460 1465 1470

Gly Ala Gly Cys Ala Gly Cys Gly Cys Ala Gly Cys Cys Thr Gly
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Gly Ala Gly Cys Ala Gly Cys Thr Gly Ala Thr Gly Ala Ala Ala
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Gly Ala Cys Cys Cys Gly Cys Thr Gly Cys Gly Ala Cys Thr Gly
1340 1345 1350 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400 1405 1410 1415 1420 1425 1430 1435 1440 1445 1450 1455 1460 1465 1470

Thr Thr Cys Gly Thr Gly Cys Cys Thr Gly Cys Cys Thr Ala Cys
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Cys Ala Gly Gly Ala Thr Gly Gly Cys Cys Ala Gly Ala Cys Cys
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Thr Thr Cys Ala Ala Cys Cys Ala Gly Ala Thr Gly Gly Ala Ala
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Gly Ala Cys Cys Thr Cys Cys Thr Gly Gly Cys Thr Gly Ala Cys
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Thr Thr Thr Gly Ala Gly Gly Cys Cys Cys Cys Thr Cys Cys
1430 1435 1440 1445 1450 1455 1460 1465 1470

Ala Thr Thr Ala Thr Gly Gly Ala Cys Thr Gly Cys Ala Ala Gly
1445 1450 1455 1460 1465 1470

Ala Thr Gly Gly Cys Ala Gly Cys Ala Gly Gly Ala Cys Cys
1460 1465 1470

EX05-004patentin.txt

Thr Ala Thr Cys Thr Gly Gly 1475 Ala Ala Gly Ala Gly Gly Ala Gly
1480 1485

Cys Thr Ala Gly Thr Gly Ala 1490 Ala Gly Gly Cys Ala Cys Gly Gly
1495 1500

Gly Ala Ala Cys Gly Thr Cys 1505 Cys Cys Cys Gly Thr Cys Cys Cys
1510 1515

Cys Gly Gly Ala Ala Gly Gly 1520 Ala Cys Ala Thr Gly Thr Ala Thr
1525 1530

Gly Ala Gly Ala Ala Gly Ala 1535 Thr Gly Gly Thr Gly Gly Cys Thr
1540 1545

Gly Thr Gly Gly Ala Cys Cys 1550 Cys Thr Gly Gly Gly Gly Cys Cys
1555 1560

Cys Cys Thr Ala Cys Cys Cys 1565 Cys Thr Gly Ala Gly Gly Ala Gly
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Cys Ala Thr Gly Cys Cys Cys 1580 Ala Gly Gly Gly Thr Gly Cys Ala
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Gly Thr Cys Ala Cys Cys Ala 1595 Ala Gly Cys Cys Cys Cys Gly Cys
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Thr Ala Cys Ala Thr Gly Cys 1610 Ala Gly Thr Gly Gly Ala Gly Gly
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Gly Ala Ala Ala Cys Cys Ala 1625 Thr Gly Ala Gly Cys Thr Cys Cys
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Ala Cys Cys Thr Cys Thr Ala 1640 Cys Cys Cys Thr Gly Gly Gly Cys
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Thr Thr Cys Cys Gly Gly Ala 1655 Thr Cys Gly Ala Gly Gly Gly Cys
1660 1665

Ala Thr Cys Ala Ala Gly Ala 1670 Ala Gly Gly Cys Ala Gly Ala Thr
1675 1680

Gly Gly Gly Ala Cys Cys Thr 1685 Gly Thr Ala Ala Cys Ala Cys Cys
1690 1695

Ala Ala Cys Thr Thr Cys Ala 1700 Ala Gly Ala Ala Gly Ala Cys Gly
1705 1710

Cys Ala Gly Gly Cys Ala Cys 1715 Thr Gly Gly Ala Gly Cys Ala Gly
1720 1725

EX05-004patentin.txt

Gly Thr Gly Ala Cys Ala Ala 1730 1735 Ala Ala Gly Thr Gly Cys Thr Gly 1740

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Gly Gly Ala Gly Ala Cys Cys 1760 1765 Ala Cys Gly Thr Cys Ala Thr Cys 1770

Cys Thr Gly Cys Ala Ala Ala 1775 1780 Ala Gly Thr Ala Cys Gly Thr Gly 1785

Gly Cys Ala Thr Gly Cys Cys 1790 1795 Thr Ala Gly Ala Ala Gly Ala Ala 1800

Cys Thr Thr Cys Gly Thr Gly 1805 1810 Ala Ala Gly Cys Thr Cys Thr Gly 1815

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Gly Thr Gly Gly Thr Ala Gly 1850 1855 Gly Cys Ala Gly Cys Thr Cys Cys 1860

Cys Thr Cys Cys Thr Cys Thr 1865 1870 Cys Gly Thr Gly Cys Ala Cys 1875

Gly Ala Cys Cys Ala Cys Ala 1880 1885 Cys Cys Gly Gly Cys Cys Thr Gly 1890

Gly Cys Cys Ala Ala Gly Gly 1895 1900 Thr Cys Thr Gly Gly Ala Thr Gly 1905

Ala Thr Ala Gly Ala Cys Thr 1910 1915 Thr Cys Gly Gly Cys Ala Ala Gly 1920

Ala Cys Gly Gly Thr Gly Gly 1925 1930 Cys Cys Thr Thr Gly Cys Cys Cys 1935

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Ala Gly Cys Cys Ala Cys Ala 1955 1960 Gly Gly Cys Thr Gly Cys Cys Cys 1965

Thr Gly Gly Gly Cys Thr Gly 1970 1975 Ala Gly Gly Gly Cys Ala Ala Cys 1980

EX05-004patentin.txt
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1985 1990 1995
Cys Thr Cys Thr Gly Gly Gly Cys Cys Thr Gly Gly Ala Cys
2000 2005 2010
Ala Ala Cys Ala Thr Gly Ala Thr Cys Thr Gly Cys Cys Thr Cys
2015 2020 2025
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2030 2035 2040
Cys Ala Gly Ala Gly Cys Thr Gly Ala
2045 2050

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<211> 461
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<213> Homo sapiens

<400> 8

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Glu Leu Arg Leu Leu Phe Glu Ala Arg Cys Ala Ala Val Ala Ala Ala
35 40 45

Ala Ala Ala Gly Glu Pro Arg Ala Arg Gly Ala Lys Arg Arg Gly Gly
50 55 60

Gln Val Pro Asn Gly Leu Pro Arg Ala Pro Pro Ala Pro Val Ile Pro
65 70 75 80

Gln Leu Thr Val Thr Ala Glu Glu Pro Asp Val Pro Pro Thr Ser Pro
85 90 95

Gly Pro Pro Glu Arg Glu Arg Asp Cys Leu Pro Ala Ala Gly Ser Ser
100 105 110

His Leu Gln Gln Pro Arg Arg Leu Ser Thr Ser Ser Val Ser Ser Thr
115 120 125

Gly Ser Ser Ser Leu Leu Glu Asp Ser Glu Asp Asp Leu Leu Ser Asp
130 135 140

Ser Glu Ser Arg Ser Arg Gly Asn Val Gln Leu Glu Ala Gly Glu Asp
145 150 155 160

Val Gly Gln Lys Asn His Trp Gln Lys Ile Arg Thr Met Val Asn Leu
Page 31

165 EX05-004patentin.txt 170 175

Pro Val Ile Ser Pro Phe Lys Lys Arg Tyr Ala Trp Val Gln Leu Ala
180 185 190

Gly His Thr Gly Ser Phe Lys Ala Ala Gly Thr Ser Gly Leu Ile Leu
195 200 205

Lys Arg Cys Ser Glu Pro Glu Arg Tyr Cys Leu Ala Arg Leu Met Ala
210 215 220

Asp Ala Leu Arg Gly Cys Val Pro Ala Phe His Gly Val Val Glu Arg
225 230 235 240

Asp Gly Glu Ser Tyr Leu Gln Leu Gln Asp Leu Leu Asp Gly Phe Asp
245 250 255

Gly Pro Cys Val Leu Asp Cys Lys Met Gly Val Arg Thr Tyr Leu Glu
260 265 270

Glu Glu Leu Thr Lys Ala Arg Glu Arg Pro Lys Leu Arg Lys Asp Met
275 280 285

Tyr Lys Lys Met Leu Ala Val Asp Pro Glu Ala Pro Thr Glu Glu Glu
290 295 300

His Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu
305 310 315 320

Gly Ile Ser Ser Ser Thr Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys
325 330 335

Lys Ala Asp Gly Ser Cys Ser Thr Asp Phe Lys Thr Thr Arg Ser Arg
340 345 350

Glu Gln Val Leu Arg Val Phe Glu Glu Phe Val Gln Gly Asp Glu Glu
355 360 365

Val Leu Arg Arg Tyr Leu Asn Arg Leu Gln Gln Ile Arg Asp Thr Leu
370 375 380

Glu Val Ser Glu Phe Phe Arg Arg His Glu Val Ile Gly Ser Ser Leu
385 390 395 400

Leu Phe Val His Asp His Cys His Arg Ala Gly Val Trp Leu Ile Asp
405 410 415

Phe Gly Lys Thr Thr Pro Leu Pro Asp Gly Gln Ile Leu Asp His Arg
420 425 430

Arg Pro Trp Glu Glu Gly Asn Arg Glu Asp Gly Tyr Leu Leu Gly Leu
Page 32

435

EX05-004patentin.txt
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<212> PRT
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<400> 9

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35 40 45Ser Pro Gly Arg Gly Ala Ser Phe Leu Phe Pro Pro Ala Glu Ser Leu
50 55 60Ser Pro Glu Glu Pro Arg Ser Pro Gly Gly Trp Arg Ser Gly Arg Arg
65 70 75 80Arg Leu Asn Ser Ser Ser Gly Ser Gly Ser Ser Gly Ser Ser
85 90 95Val Ser Ser Pro Ser Trp Ala Gly Arg Leu Arg Gly Asp Arg Gln Gln
100 105 110Val Val Ala Ala Gly Thr Leu Ser Pro Pro Gly Pro Glu Glu Ala Lys
115 120 125Arg Lys Leu Arg Ile Leu Gln Arg Glu Leu Gln Asn Val Gln Val Asn
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145 150 155 160Ile Gln Ala Pro Arg Ser Pro Arg Leu Gly Arg Ala Arg Ser Pro Ser
165 170 175Pro Cys Pro Phe Arg Ser Ser Ser Gln Pro Pro Gly Arg Val Leu Val
180 185 190Gln Gly Ala Arg Ser Glu Glu Arg Arg Thr Lys Ser Trp Gly Glu Gln
195 200 205Cys Pro Glu Thr Ser Gly Thr Asp Ser Gly Arg Lys Gly Gly Pro Ser
210 215 220

EX05-004patentin.txt

Leu Cys Ser Ser Gln Val Lys Lys Gly Met Pro Pro Leu Pro Gly Arg
225 230 235 240

Ala Ala Pro Thr Gly Ser Glu Ala Gln Gly Pro Ser Ala Phe Val Arg
245 250 255

Met Glu Lys Gly Ile Pro Ala Ser Pro Arg Cys Gly Ser Pro Thr Ala
260 265 270

Met Glu Ile Asp Lys Arg Gly Ser Pro Thr Pro Gly Thr Arg Ser Cys
275 280 285

Leu Ala Pro Ser Leu Gly Leu Phe Gly Ala Ser Leu Thr Met Ala Thr
290 295 300

Glu Val Ala Ala Arg Val Thr Ser Thr Gly Pro His Arg Pro Gln Asp
305 310 315 320

Leu Ala Leu Thr Glu Pro Ser Gly Arg Ala Arg Glu Leu Glu Asp Leu
325 330 335

Gln Pro Pro Glu Ala Leu Val Glu Arg Gln Gly Gln Phe Leu Gly Ser
340 345 350

Glu Thr Ser Pro Ala Pro Glu Arg Gly Gly Pro Arg Asp Gly Glu Pro
355 360 365

Pro Gly Lys Met Gly Lys Gly Tyr Leu Pro Cys Gly Met Pro Gly Ser
370 375 380

Gly Glu Pro Glu Val Gly Lys Arg Pro Glu Glu Thr Thr Val Ser Val
385 390 395 400

Gln Ser Ala Glu Ser Ser Asp Ser Leu Ser Trp Ser Arg Leu Pro Arg
405 410 415

Ala Leu Ala Ser Val Gly Pro Glu Glu Ala Arg Ser Gly Ala Pro Val
420 425 430

Gly Gly Gly Arg Trp Gln Leu Ser Asp Arg Val Glu Gly Gly Ser Pro
435 440 445

Thr Leu Gly Leu Leu Gly Gly Ser Pro Ser Ala Gln Pro Gly Thr Gly
450 455 460

Asn Val Glu Ala Gly Ile Pro Ser Gly Arg Met Leu Glu Pro Leu Pro
465 470 475 480

Cys Trp Asp Ala Ala Lys Asp Leu Lys Glu Pro Gln Cys Pro Pro Gly
485 490 495

EX05-004patentin.txt

Asp Arg Val Gly Val Gln Pro Gly Asn Ser Arg Val Trp Gln Gly Thr
500 505 510

Met Glu Lys Ala Gly Leu Ala Trp Thr Arg Gly Thr Gly Val Gln Ser
515 520 525

Glu Gly Thr Trp Glu Ser Gln Arg Gln Asp Ser Asp Ala Leu Pro Ser
530 535 540

Pro Glu Leu Leu Pro Gln Asp Gln Asp Lys Pro Phe Leu Arg Lys Ala
545 550 555 560

Cys Ser Pro Ser Asn Ile Pro Ala Val Ile Ile Thr Asp Met Gly Thr
565 570 575

Gln Glu Asp Gly Ala Leu Glu Glu Thr Gln Gly Ser Pro Arg Gly Asn
580 585 590

Leu Pro Leu Arg Lys Leu Ser Ser Ser Ala Ser Ser Thr Gly Phe
595 600 605

Ser Ser Ser Tyr Glu Asp Ser Glu Glu Asp Ile Ser Ser Asp Pro Glu
610 615 620

Arg Thr Leu Asp Pro Asn Ser Ala Phe Leu His Thr Leu Asp Gln Gln
625 630 635 640

Lys Pro Arg Val Ser Lys Ser Trp Arg Lys Ile Lys Asn Met Val His
645 650 655

Trp Ser Pro Phe Val Met Ser Phe Lys Lys Lys Tyr Pro Trp Ile Gln
660 665 670

Leu Ala Gly His Ala Gly Ser Phe Lys Ala Ala Ala Asn Gly Arg Ile
675 680 685

Leu Lys Lys His Cys Glu Ser Glu Gln Arg Cys Leu Asp Arg Leu Met
690 695 700

Val Asp Val Leu Arg Pro Phe Val Pro Ala Tyr His Gly Asp Val Val
705 710 715 720

Lys Asp Gly Glu Arg Tyr Asn Gln Met Asp Asp Leu Leu Ala Asp Phe
725 730 735

Asp Ser Pro Cys Val Met Asp Cys Lys Met Gly Ile Arg Thr Tyr Leu
740 745 750

Glu Glu Glu Leu Thr Lys Ala Arg Lys Lys Pro Ser Leu Arg Lys Asp
755 760 765

EX05-004patentin.txt

Met Tyr Gln Lys Met Ile Glu Val Asp Pro Glu Ala Pro Thr Glu Glu
770 775 780

Glu Lys Ala Gln Arg Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg
785 790 795 800

Glu Thr Ile Ser Ser Thr Ala Thr Leu Gly Phe Arg Ile Glu Gly Ile
805 810 815

Lys Lys Glu Asp Gly Thr Val Asn Arg Asp Phe Lys Lys Thr Lys Thr
820 825 830

Arg Glu Gln Val Thr Glu Ala Phe Arg Glu Phe Thr Lys Gly Asn His
835 840 845

Asn Ile Leu Ile Ala Tyr Arg Asp Arg Leu Lys Ala Ile Arg Thr Thr
850 855 860

Leu Glu Val Ser Pro Phe Phe Lys Cys His Glu Val Ile Gly Ser Ser
865 870 875 880

Leu Leu Phe Ile His Asp Lys Lys Glu Gln Ala Lys Val Trp Met Ile
885 890 895

Asp Phe Gly Lys Thr Thr Pro Leu Pro Glu Gly Gln Thr Leu Gln His
900 905 910

Asp Val Pro Trp Gln Glu Gly Asn Arg Glu Asp Gly Tyr Leu Ser Gly
915 920 925

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930 935 940

Leu Ala
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<400> 10

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Arg Arg Arg Gln Pro Gly Gln Gln Arg Pro Gly Pro Gly Ala Gly Ala
35 40 45

EX05-004patentin.txt

Pro Ala Gly Arg Pro Glu Gly Gly Pro Trp Ala Arg Thr Glu Gly
50 55 60

Ser Ser Leu His Ser Glu Pro Glu Arg Ala Gly Leu Gly Pro Ala Pro
65 70 75 80

Gly Thr Glu Ser Pro Gln Ala Glu Phe Trp Thr Asp Gly Gln Thr Glu
85 90 95

Pro Ala Ala Ala Gly Leu Gly Val Glu Thr Glu Arg Pro Lys Gln Lys
100 105 110

Thr Glu Pro Asp Arg Ser Ser Leu Arg Thr His Leu Glu Trp Ser Trp
115 120 125

Ser Glu Leu Glu Thr Thr Cys Leu Trp Thr Glu Thr Gly Thr Asp Gly
130 135 140

Leu Trp Thr Asp Pro His Arg Ser Asp Leu Gln Phe Gln Pro Glu Glu
145 150 155 160

Ala Ser Pro Trp Thr Gln Pro Gly Val His Gly Pro Trp Thr Glu Leu
165 170 175

Glu Thr His Gly Ser Gln Thr Gln Pro Glu Arg Val Lys Ser Trp Ala
180 185 190

Asp Asn Leu Trp Thr His Gln Asn Ser Ser Leu Gln Thr His Pro
195 200 205

Glu Gly Ala Cys Pro Ser Lys Glu Pro Ser Ala Asp Gly Ser Trp Lys
210 215 220

Glu Leu Tyr Thr Asp Gly Ser Arg Thr Gln Gln Asp Ile Glu Gly Pro
225 230 235 240

Trp Thr Glu Pro Tyr Thr Asp Gly Ser Gln Lys Lys Gln Asp Thr Glu
245 250 255

Ala Ala Arg Lys Gln Pro Gly Thr Gly Gly Phe Gln Ile Gln Gln Asp
260 265 270

Thr Asp Gly Ser Trp Thr Gln Pro Ser Thr Asp Gly Ser Gln Thr Ala
275 280 285

Pro Gly Thr Asp Cys Leu Leu Gly Glu Pro Glu Asp Gly Pro Leu Glu
290 295 300

Glu Pro Glu Pro Gly Glu Leu Leu Thr His Leu Tyr Ser His Leu Lys
305 310 315 320

EX05-004patentin.txt

Cys Ser Pro Leu Cys Pro Val Pro Arg Leu Ile Ile Thr Pro Glu Thr
325 330 335

Pro Glu Pro Glu Ala Gln Pro Val Gly Pro Pro Ser Arg Val Glu Gly
340 345 350

Gly Ser Gly Gly Phe Ser Ser Ala Ser Ser Phe Asp Glu Ser Glu Asp
355 360 365

Asp Val Val Ala Gly Gly Gly Ala Ser Asp Pro Glu Asp Arg Ser
370 375 380

Gly Ser Lys Pro Trp Lys Lys Leu Lys Thr Val Leu Lys Tyr Ser Pro
385 390 395 400

Phe Val Val Ser Phe Arg Lys His Tyr Pro Trp Val Gln Leu Ser Gly
405 410 415

His Ala Gly Asn Phe Gln Ala Gly Glu Asp Gly Arg Ile Leu Lys Arg
420 425 430

Phe Cys Gln Cys Glu Gln Arg Ser Leu Glu Gln Leu Met Lys Asp Pro
435 440 445

Leu Arg Pro Phe Val Pro Ala Tyr Tyr Gly Met Val Leu Gln Asp Gly
450 455 460

Gln Thr Phe Asn Gln Met Glu Asp Leu Leu Ala Asp Phe Glu Gly Pro
465 470 475 480

Ser Ile Met Asp Cys Lys Met Gly Ser Arg Thr Tyr Leu Glu Glu
485 490 495

Leu Val Lys Ala Arg Glu Arg Pro Arg Pro Arg Lys Asp Met Tyr Glu
500 505 510

Lys Met Val Ala Val Asp Pro Gly Ala Pro Thr Pro Glu Glu His Ala
515 520 525

Gln Gly Ala Val Thr Lys Pro Arg Tyr Met Gln Trp Arg Glu Thr Met
530 535 540

Ser Ser Thr Ser Thr Leu Gly Phe Arg Ile Glu Gly Ile Lys Lys Ala
545 550 555 560

Asp Gly Thr Cys Asn Thr Asn Phe Lys Lys Thr Gln Ala Leu Glu Gln
565 570 575

Val Thr Lys Val Leu Glu Asp Phe Val Asp Gly Asp His Val Ile Leu
580 585 590

EX05-004patentin.txt

Gln Lys Tyr Val Ala Cys Leu Glu Glu Leu Arg Glu Ala Leu Glu Ile
595 600 605

Ser Pro Phe Phe Lys Thr His Glu Val Val Gly Ser Ser Leu Leu Phe
610 615 620

Val His Asp His Thr Gly Leu Ala Lys Val Trp Met Ile Asp Phe Gly
625 630 635 640

Lys Thr Val Ala Leu Pro Asp His Gln Thr Leu Ser His Arg Leu Pro
645 650 655

Trp Ala Glu Gly Asn Arg Glu Asp Gly Tyr Leu Trp Gly Leu Asp Asn
660 665 670

Met Ile Cys Leu Leu Gln Gly Leu Ala Gln Ser
675 680